

## CURRENT LISTING OF CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of claims:

1 – 88. (cancelled without prejudice)

89. (currently amended) A purchasing risk management method implemented by a computer including a processor, comprising:

using the processor to:

compute a vendor mix from one or more prior purchases, one or more future commitments, and a forecast inventory depletion for each period of a forecast planning period based on one or more scenarios for an item demand, an item price, an item availability and a specified service level for each of a plurality of items; and

compute one or more variables for each item based upon the computed vendor mix wherein the one or more variables are selected from the group consisting of a quantity variability risk measure, an obsolescence time risk measure, a quantity trend risk measure and combinations thereof;

perform an optimization calculation that incorporates one or more item demand forecasts that have been developed using the one or more variables, and  
generate and output a list of actions that will maximize a business profitability.

90. (currently amended) The method of claim 89, wherein the ~~one or more variables~~ comprise an item trend variable list of actions comprise a set of item quantities that should be purchased from each of one or more vendors.

91. (currently amended) The method of claim 89, wherein the ~~one or more variables~~ comprise an item demand variability variable list of actions comprise a set of item quantities that should be purchased from each of one or more vendors for a given set of discount schedules.

92. (previously presented) The method of claim 89, wherein the one or more variables comprise an item obsolescence risk variable.

93. (previously presented) The method of claim 89, wherein the one or more variables comprise a variable that combines an item trend variable, an item demand variability variable and an item obsolescence risk variable.

94. (previously presented) The method of claim 89, wherein the one or more variables comprise one or more metrics.

95. (previously presented) The method of claim 89, wherein the one or more variables comprise a variable that combines a normalized item trend variable, a normalized item demand variability variable and a normalized item obsolescence risk variable where the scale of the item risk variable is reversed.

96. (previously presented) The method of claim 95, wherein the variable has a utility in developing a composite forecast.

97. (previously presented) The method of claim 89, wherein the method further comprises:  
preparing a plurality of data related to a commercial enterprise for use in analysis,  
identifying a set of data required for analyzing the commercial enterprise from the prepared data,  
analyzing the set of data in an automated fashion as required to identify one or more statistics, and  
using the statistics and the set of data to develop a model of an enterprise current operation financial performance using one or more automated learning techniques  
where the commercial enterprise physically exists, and  
where the set of data comprises the one or more variables computed for each item based upon the computed vendor mix.

98. (currently amended) A computer program product tangibly embodied on a computer readable medium and comprising a non-transitory program code for directing a computer with at least one processor to:

compute a vendor mix from one or more prior purchases, one or more future commitments, and a forecast inventory depletion for each period of a forecast planning period based on one or more scenarios for an item demand, an item price, an item availability and a specified service level for each of a plurality of items; and

compute one or more variables for each item based upon the computed vendor mix wherein the one or more variables are selected from the group consisting of a quantity variability risk measure, an obsolescence time risk measure, a quantity trend risk measure and combinations thereof;

perform an optimization calculation that incorporates one or more item demand forecasts that have been developed by using the one or more variables, and  
generate and output a list of actions that will maximize a business profitability.

99. (currently amended) The computer program product of claim 98, wherein the ~~one or more variables comprise an item trend variable~~ list of actions comprise a set of item quantities that should be purchased from each of one or more vendors.

100. (currently amended) The computer program product of claim 98, wherein the ~~one or more variables comprise an item demand variability variable~~ list of actions comprise a set of item quantities that should be purchased from each of one or more vendors for a given set of discount schedules.

101. (previously presented) The computer program product of claim 98, wherein the one or more variables comprise an item obsolescence risk variable.

102. (previously presented) The computer program product of claim 98, wherein the one or more variables comprise a variable that combines an item trend variable, an item demand variability variable and an item obsolescence risk variable.

103. (previously presented) The computer program product of claim 98, wherein the one or more variables comprise one or more metrics.

104. (previously presented) The computer program product of claim 98, wherein the one or more variables comprise a variable that combines a normalized item trend variable, a normalized item demand variability variable and a normalized item obsolescence risk variable

where the scale of the item risk variable is reversed.

105. (previously presented) The computer program product of claim 104, wherein the variable has a utility in developing a composite forecast.

106. (currently amended) A system, comprising: a computer with a processor having circuitry to execute instructions; a storage device available to said processor with sequences of instructions stored therein, which when executed cause the processor to:

compute a vendor mix from one or more prior purchases, one or more future commitments, and a forecast inventory depletion for each period of a forecast planning period based on one or more scenarios for an item demand, an item price, an item availability and a specified service level for each of a plurality of items; and

compute one or more variables for each item based upon the computed vendor mix wherein the one or more variables are selected from the group consisting of a quantity variability risk measure, an obsolescence time risk measure, a quantity trend risk measure and combinations thereof;

perform an optimization calculation that incorporates one or more item demand forecasts that have been developed by using the one or more variables, and

generate and output a list of actions that will maximize a business profitability.

107. (currently amended) The system of claim 106, wherein the ~~one or more variables~~ comprise an item trend variable list of actions comprise a set of item quantities that should be purchased from each of one or more vendors.

108. (currently amended) The system of claim 106, wherein the ~~one or more variables~~ comprise an item demand variability variable list of actions comprise a set of item quantities that should be purchased from each of one or more vendors for a given set of discount schedules.

109. (previously presented) The system of claim 106, wherein the one or more variables comprise an item obsolescence risk variable.

110. (previously presented) The system of claim 106, wherein the one or more variables comprise a variable that combines an item trend variable, an item demand variability variable and an item obsolescence risk variable.

111. (previously presented) The system of claim 106, wherein the one or more variables comprise one or more metrics.

112. (previously presented) The system of claim 106, wherein the one or more variables comprise a variable that combines a normalized item trend variable, a normalized item demand variability variable and a normalized item obsolescence risk variable where the scale of the item risk variable is reversed.

113. (previously presented) The system of claim 106, wherein the variable has a utility in developing a composite forecast.

114. (previously presented) The system of claim 106, wherein the sequences of instructions stored in the storage device also cause the processor to:

- prepare a plurality of data related to a commercial enterprise for use in analysis,
- identify a set of data required for analyzing the commercial enterprise from the prepared data,
- analyze the set of data in an automated fashion as required to identify one or more statistics,
- and
- use the statistics and the set of data to develop a model of an enterprise current operation financial performance by using one or more automated learning techniques
  - where the commercial enterprise physically exists, and
  - where the set of data comprises the one or more variables computed for each item based upon the computed vendor mix.

115. (new) A system, comprising: a computer with a processor having circuitry to execute instructions; a storage device available to said processor with sequences of instructions stored therein, which when executed cause the processor to:

- receive a plurality of item volume information;
- transform at least a portion of said data into at least one risk measure, wherein the at least one risk measure is a quantity variability measure, an obsolescence time measure and a

quantity trend measure;

receive at least one market input parameter characterizing a market for one or more products that incorporate said items;

perform an optimization calculation that incorporates at least one risk measure using the at least one market input parameter to generate at least one set of optimal purchasing requisitions for said items; and

manage a supply chain risk based on said set of requisitions.

116. (new) The system of claim 115, wherein the set of optimal purchasing requisitions maximizes a business profitability.

117. (new) The system of claim 115, wherein the one or more risk measures comprise a variable that combines the quantity trend measure, the quantity variability measure and the obsolescence time measure.

118. (new) The system of claim 115, wherein the one or more measures comprise one or more metrics.

119. (new) The system of claim 115, wherein the one or more risk measures comprise a variable that combines a normalized quantity trend measure, a normalized quantity variability measure and a normalized obsolescence time measure.

120. (new) The system of claim 119, wherein the variable has a utility in developing a composite forecast.

121. (new) A computer program product tangibly embodied on a computer readable medium and comprising a non-transitory program code for directing a computer with at least one processor to:

receive a plurality of item volume information;

transform at least a portion of said data into at least one risk measure, wherein the at least one risk measure is a quantity variability measure, an obsolescence time measure and a quantity trend measure;

receive at least one market input parameter characterizing a market for one or more products that incorporate said items;

perform an optimization calculation that incorporates at least one risk measure using the at least one market input parameter to generate at least one set of optimal purchasing requisitions for said items; and  
manage a supply chain risk based on said set of requisitions.

122. (new) The computer program product of claim 121, wherein the set of optimal purchasing requisitions maximizes a business profitability.

123. (new) The computer program product of claim 121, wherein the one or more risk measures comprise a variable that combines the quantity trend measure, the quantity variability measure and the obsolescence time measure.

124. (new) The computer program product of claim 121, wherein the one or more measures comprise one or more metrics.

125. (new) The computer program product of claim 121, wherein the one or more risk measures comprise a variable that combines a normalized quantity trend measure, a normalized quantity variability measure and a normalized obsolescence time measure.

126. (new) The computer program product of claim 125, wherein the variable has a utility in developing a composite forecast.

127. (new) An advanced purchasing risk management method implemented by a computer including a processor, comprising:

using the processor to:

receive a plurality of item volume information;

transform at least a portion of said data into at least one risk measure, wherein the at least one risk measure is a quantity variability measure, an obsolescence time measure and a quantity trend measure;

receive at least one market input parameter characterizing a market for one or more products that incorporate said items;

perform an optimization calculation that incorporates at least one risk measure using the at least one market input parameter to generate at least one set of optimal purchasing requisitions for said items; and

manage a supply chain risk based on said set of requisitions.

128. (new) The method of claim 127, wherein the set of optimal purchasing requisitions maximizes a business profitability.

129. (new) The method of claim 127, wherein the one or more risk measures comprise a variable that combines the quantity trend measure, the quantity variability measure and the obsolescence time measure.

130. (new) The method of claim 127, wherein the one or more measures comprise one or more metrics.

131. (new) The method of claim 127, wherein the one or more risk measures comprise a variable that combines a normalized quantity trend measure, a normalized quantity variability measure and a normalized obsolescence time measure.

132. (new) The method of claim 131, wherein the variable has a utility in developing a composite forecast.